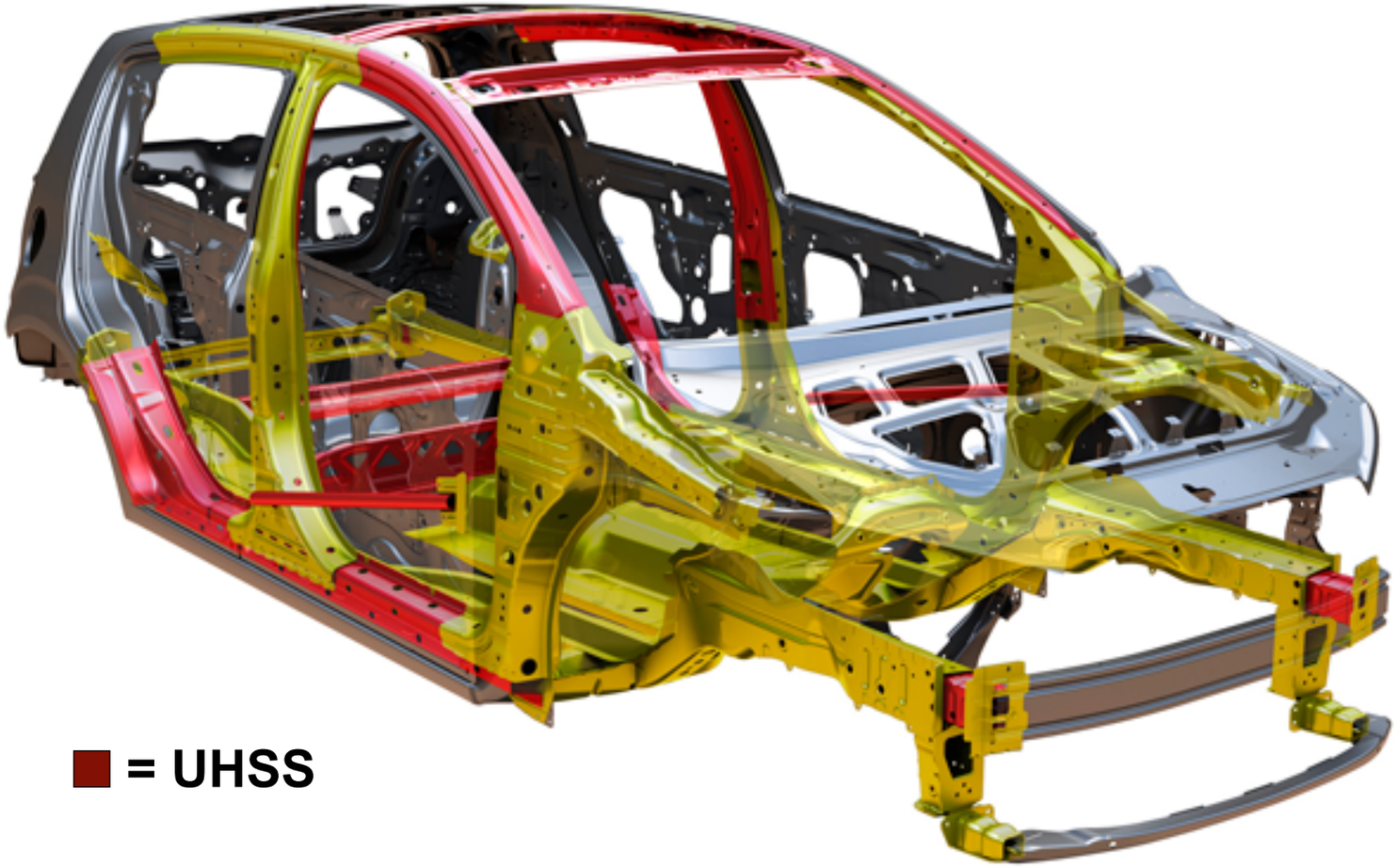
Video: Tech/Trends Trivia

2013 Chevrolet Sonic



■ = UHSS

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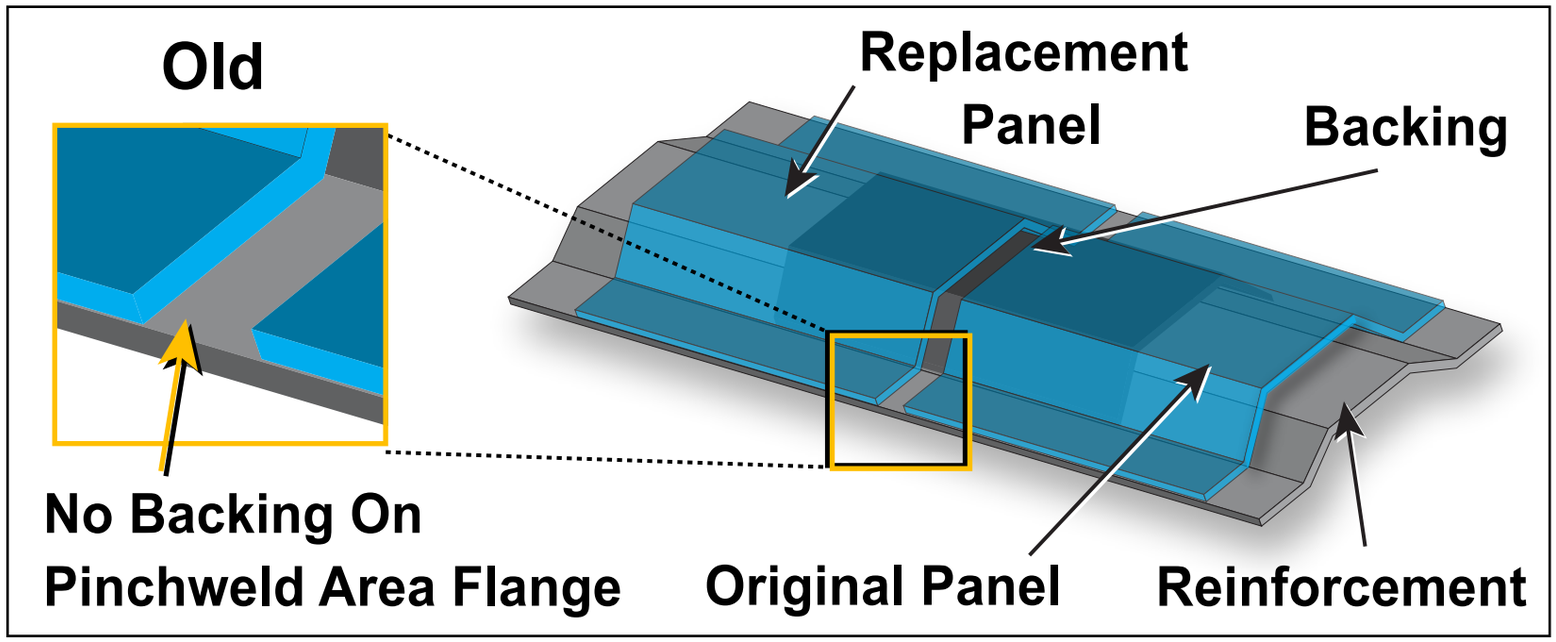
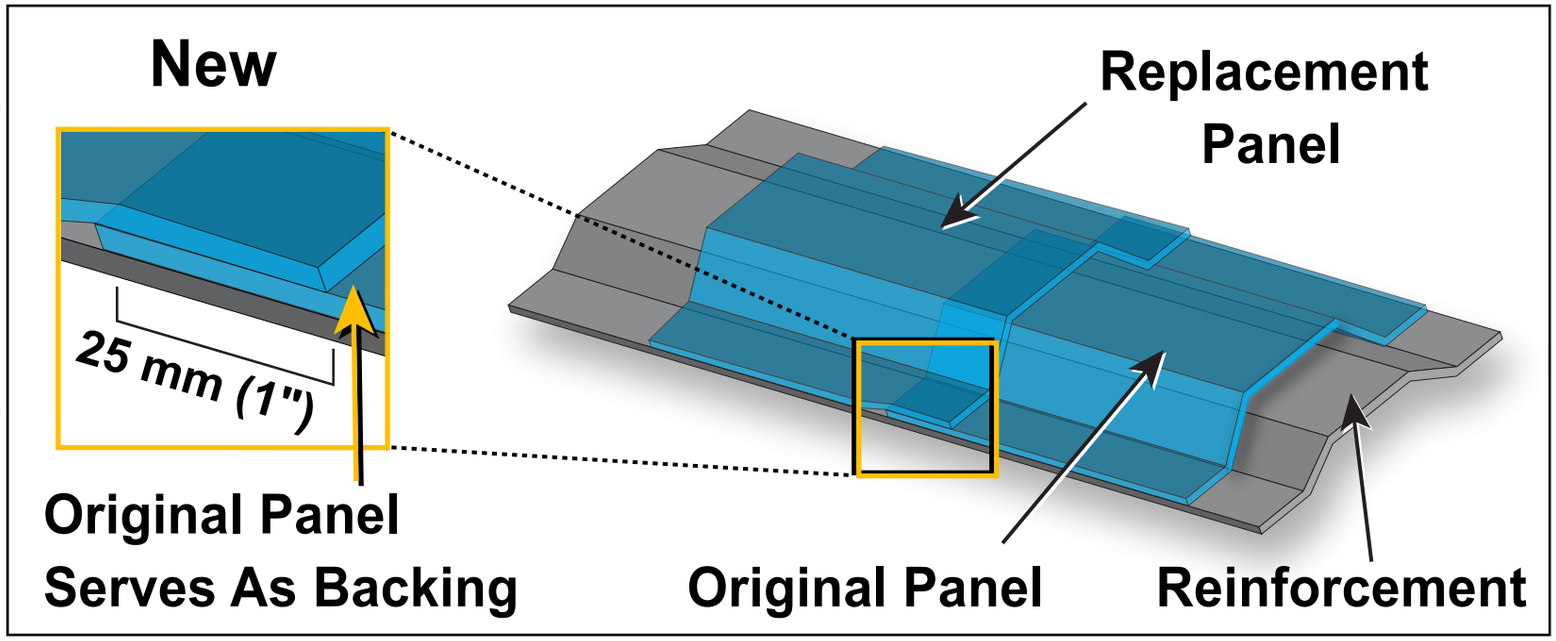
- UHSS roof header panel, inner B-pillar, inner rocker panel, and rocker panel reinforcement
- Sectioning procedures for outer A- and B-pillar, rocker panel, quarter panel, and rear rail
- Made in Korea

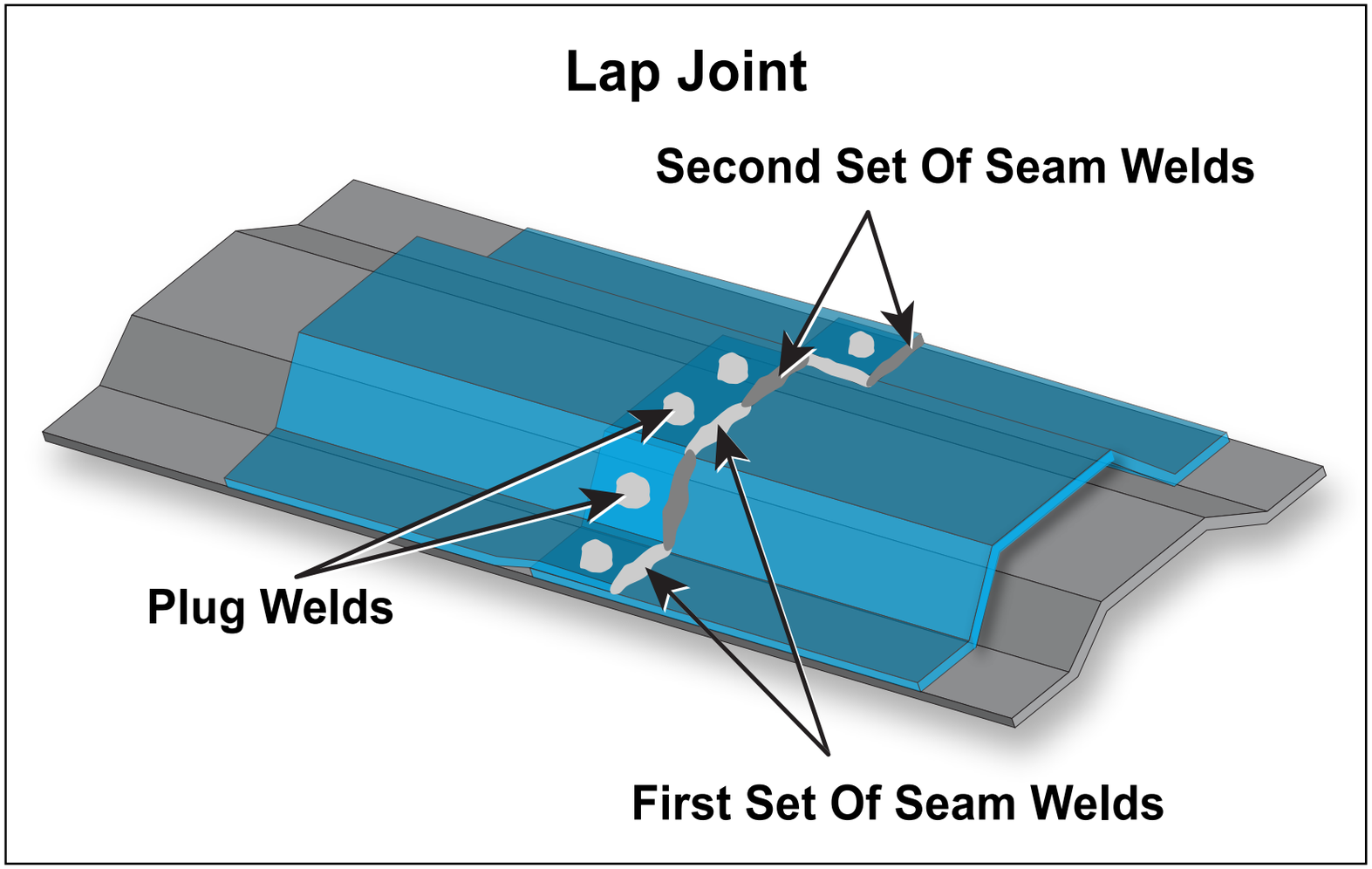
25 mm Lap Joint





- Outer sectioning joints on the Sonic are laps rather than butt joints with backing
- The overlap on the flanges serves as a backing
  - less heat to UHSS reinforcement areas on flanges

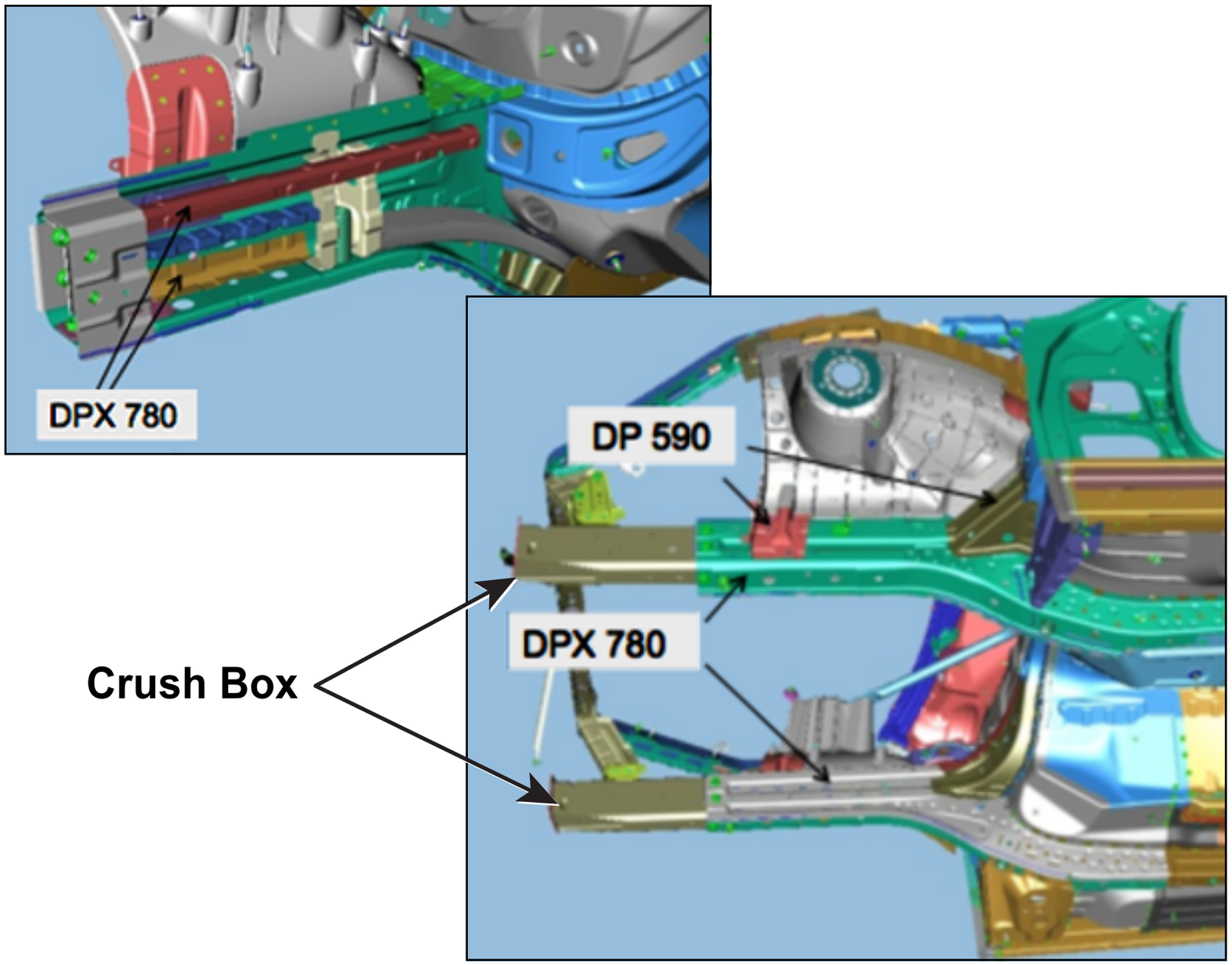
25 mm Lap Joint (cont'd)



- Weld made in one-inch intervals (skip method)
- Being recommended on many new uniside repairs
- Joint may or may not include plug welds, in addition to fillet weld

Video: 2013 Cadillac ATS

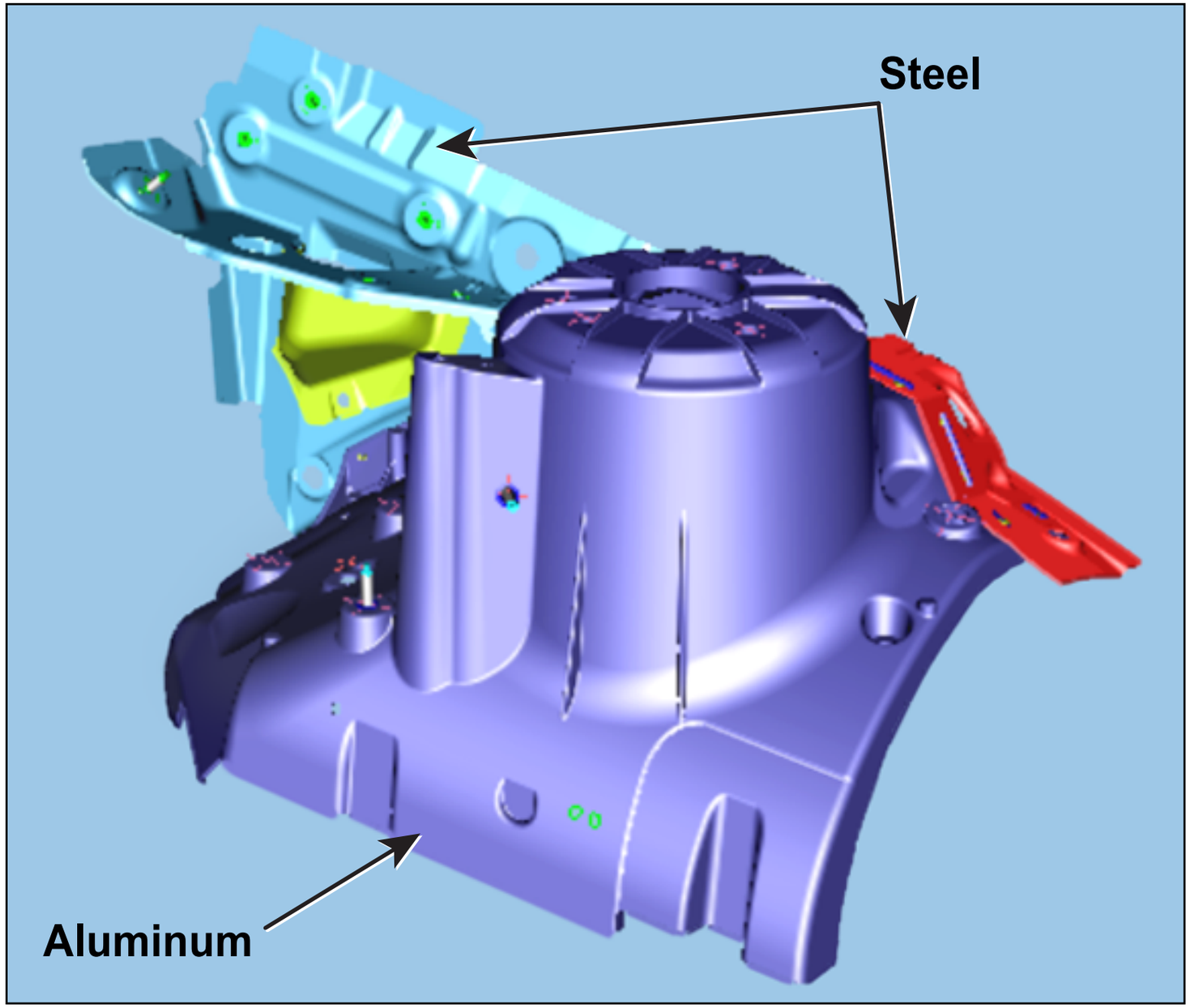
Front Lower Rails On Cadillac ATS



Courtesy of General Motors Corporation

- Aluminum crush box
- Dual-phase (DP) 780 inners and outers
- DP 780 reinforcements
- Full replacement is only option
- Rear rail has sectioning procedure

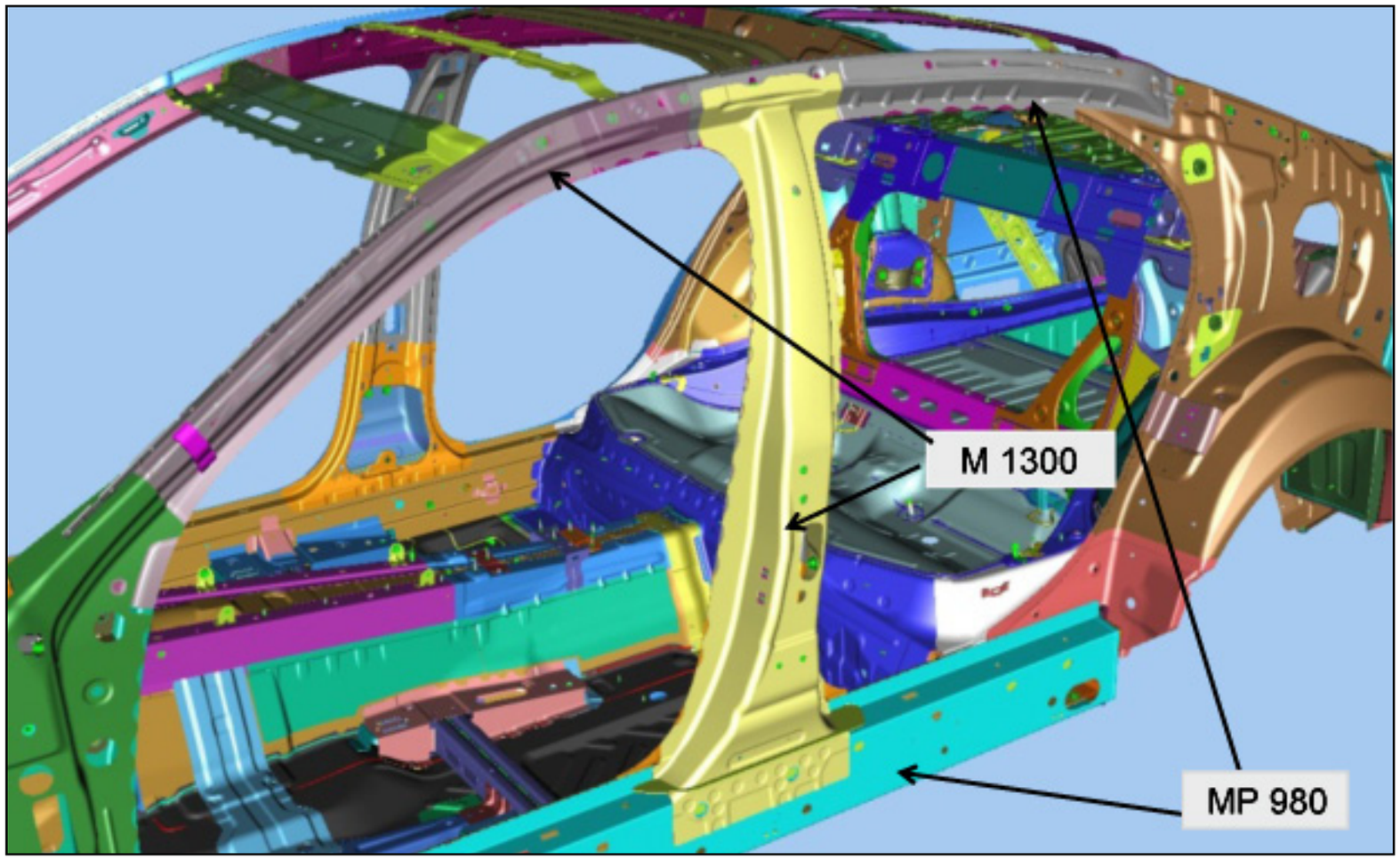
Aluminum Wheelhouse On Cadillac ATS



Courtesy of General Motors Corporation

- **Bonded and riveted to steel brackets**
- **Service part is same as production part**
  - **bonded and riveted to the vehicle, same as production**

Side Structure On Cadillac ATS



Courtesy of General Motors Corporation

- Martensitic (M) 1,300 roof rail, B-pillar reinforcement
- Multi-phase (MP) 980 rocker panel reinforcement
- Baffles in rocker panel are DP 780
- Inner B-pillar is MP 980, bottom is DP 780

UHSS Stamp Intentions

Dual Phase > 780	DPX
Multi-Phase	MP
Martensitic	M
Boron/Press-Hardened	B
Trip	TR

- Steels with tensile strength 780 MPa or higher
- Embossed stamp
- For identification
- Beginning with Cadillac ATS
- Production and service parts

Video: E-Assist "Hybrid"

Video: Tech/Trends Trivia

Structural Changes To Chevrolet Volt

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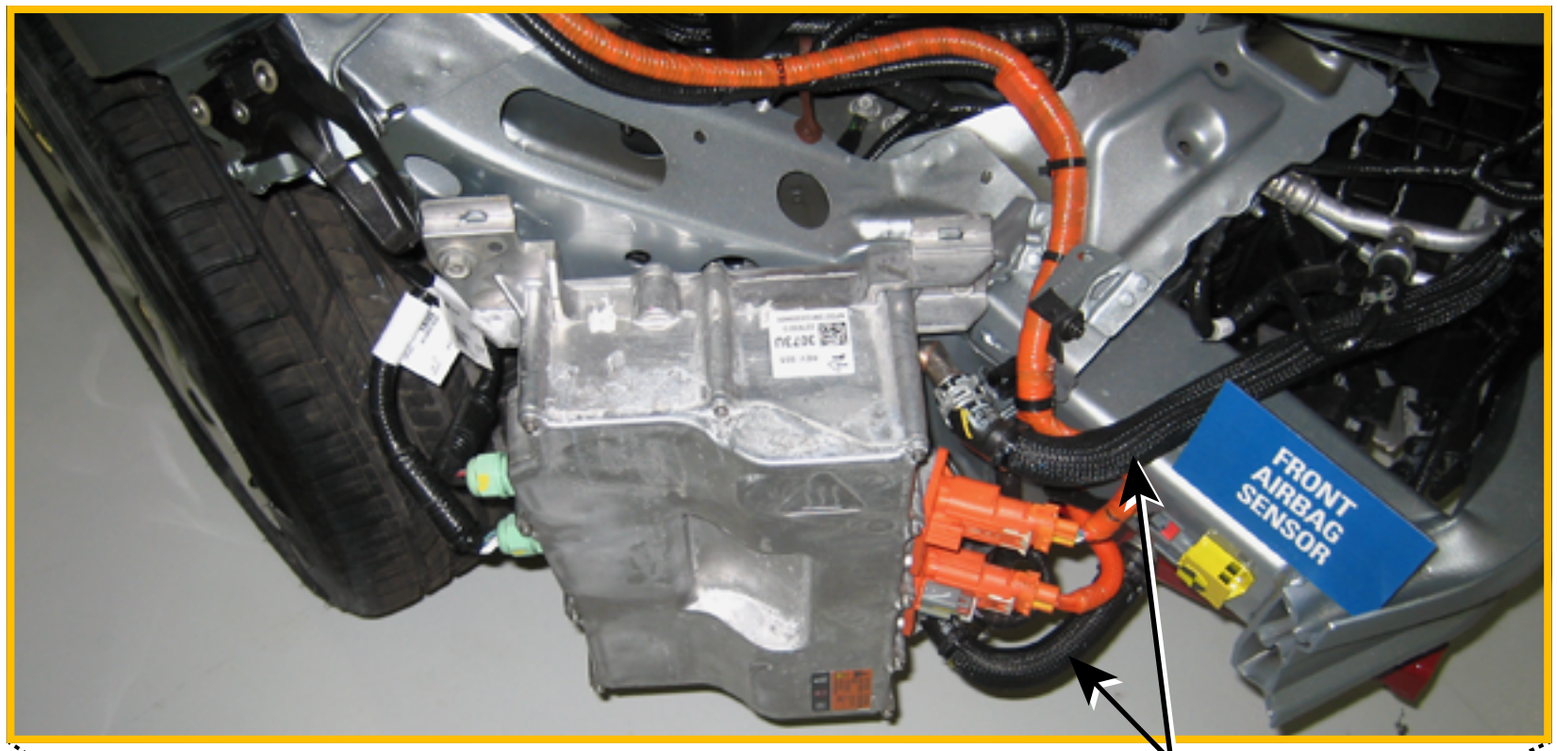
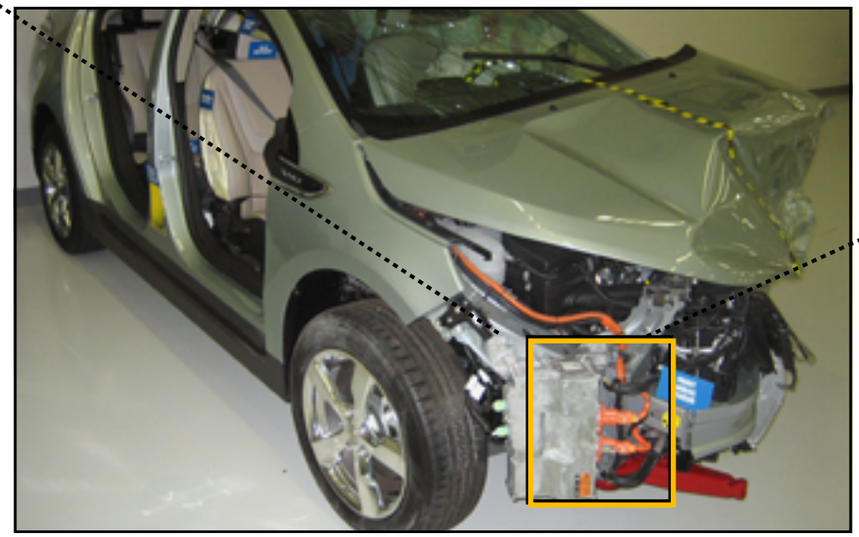
- Further protect from electrical fire after severe collision
- Added tamper-resistant bracket to coolant reservoir to help prevent coolant overfill
- Added sensor to monitor coolant levels

AC Charger On Chevrolet Volt

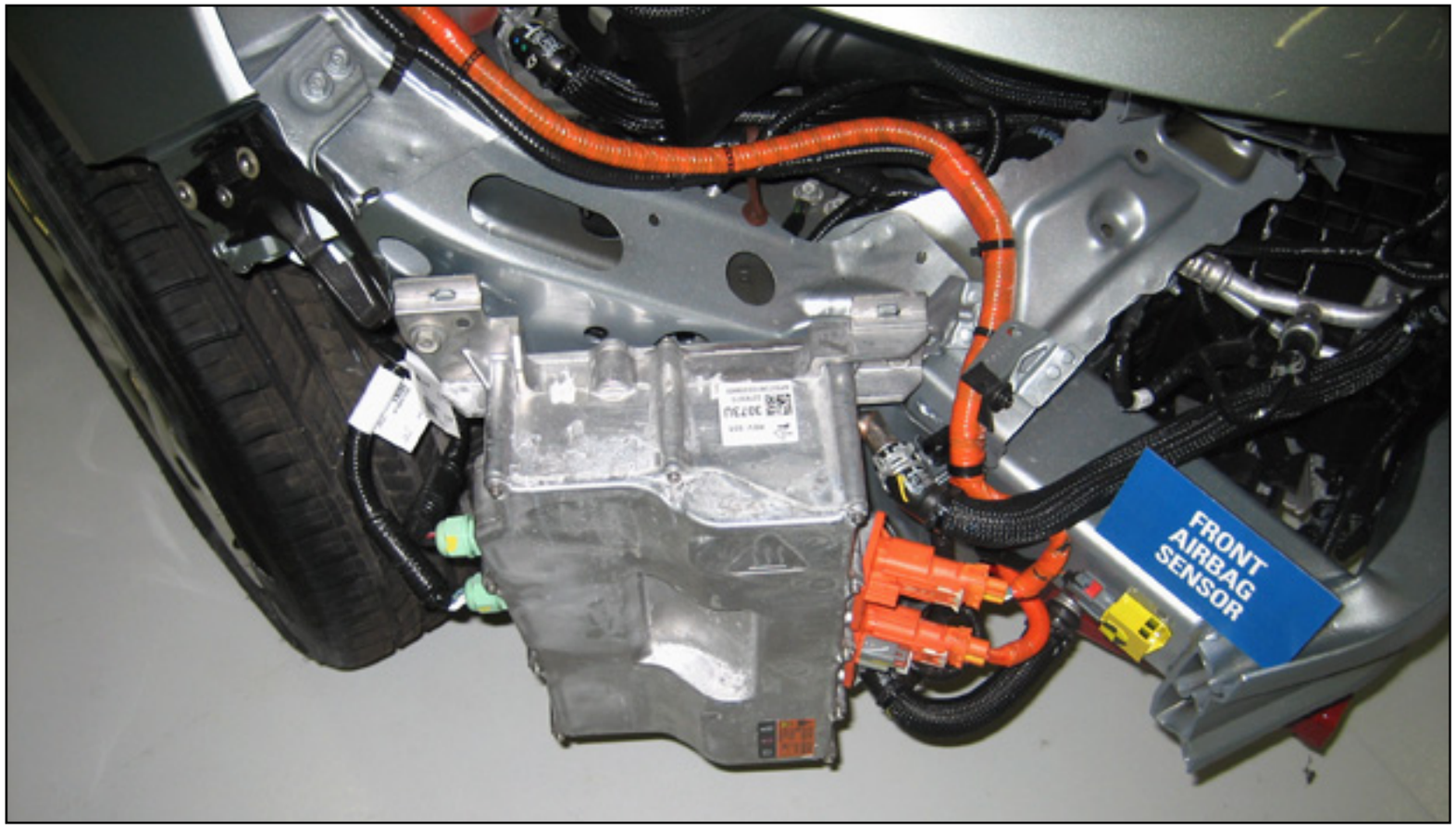


Coolant Lines



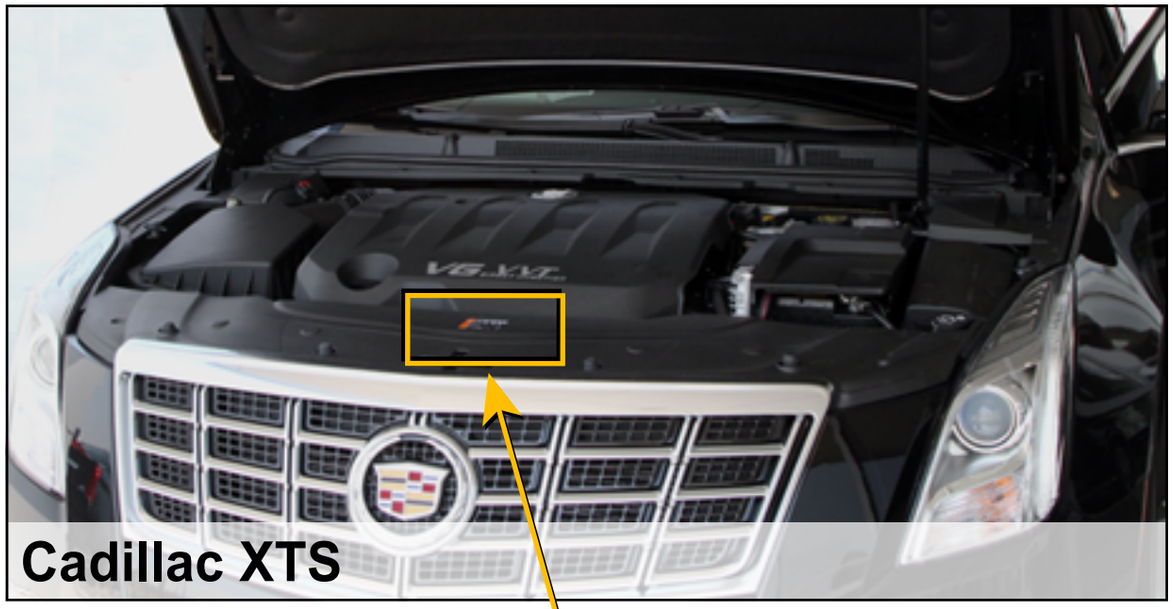
- High voltage charger converts household AC into DC
- Liquid-cooled
  - coolant lines go in and out of unit

Location Of AC Charger On Chevrolet Volt



- Behind passenger headlamp assembly and bumper fascia on right side
- Bumper reinforcement does not protect
- After front collision, inspect this unit for damage or leaks

New Refrigerant Plans For Cadillac



- R-1234yf
- European mandate since January 2011
- 2013 Cadillac XTS and ATS first in U.S.
- Cannot be mixed with R-134a
- Retrofitting not possible

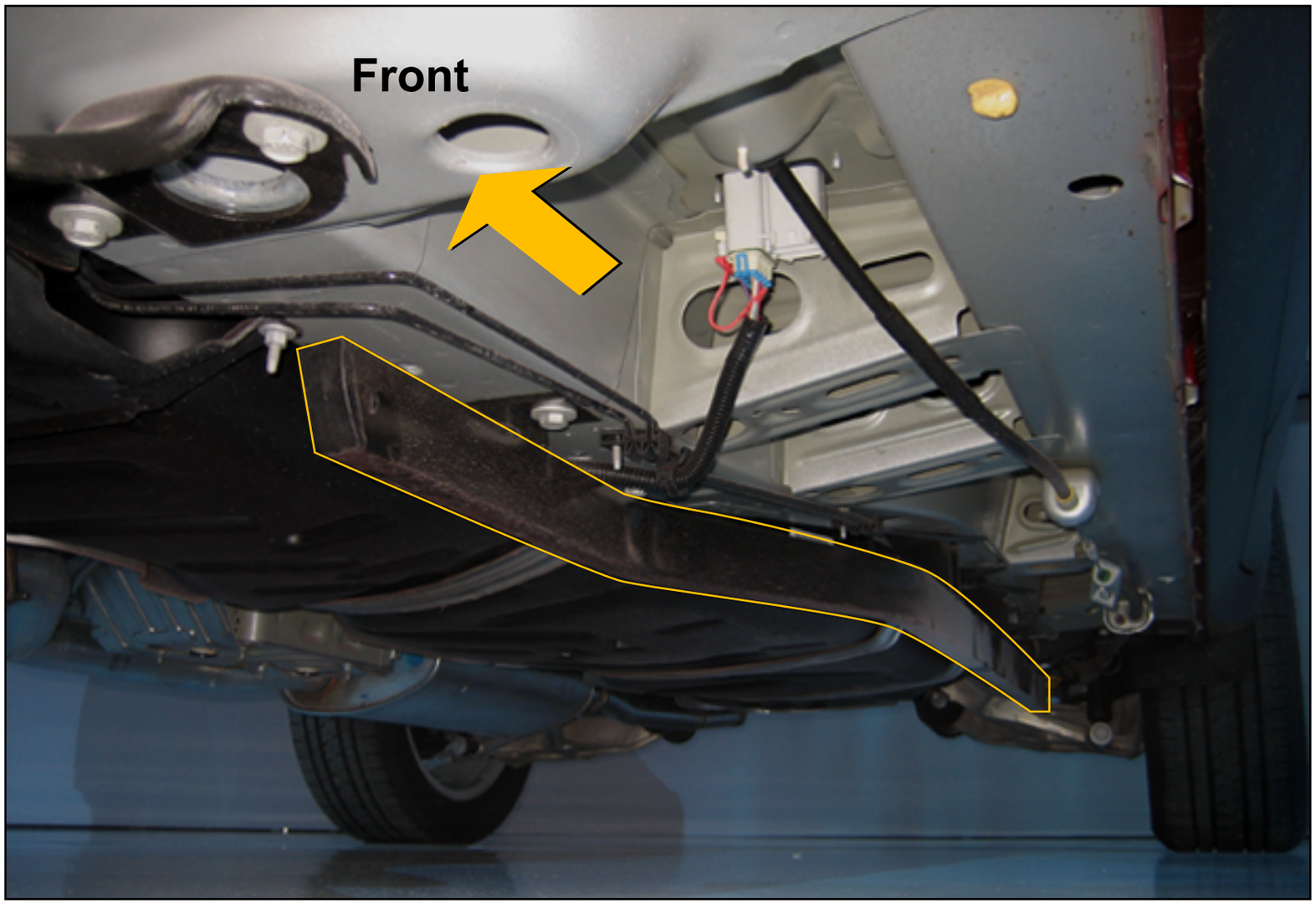
Vibrating Seat On The Cadillac XTS

- Alerts of possible collision
- Left or right side of driver seat
- Both sides when threats from front and rear
- No recalibration or reset when seat is removed and reinstalled

First Center Airbag

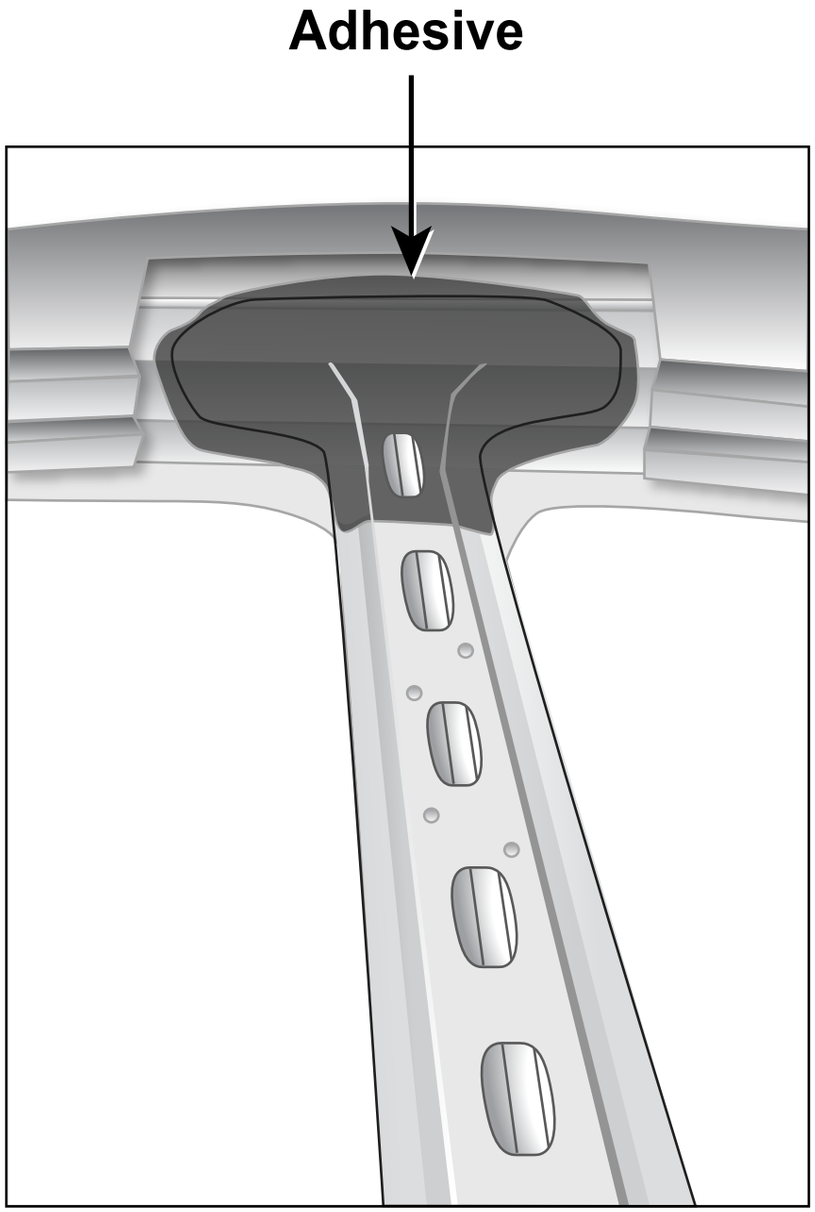
- On 2013 GMC Acadia, Chevrolet Traverse, Buick Enclave
- Deploys from inboard side of driver seat
- Designed to protect driver and front passenger in far-side impact
- Expected to be spread to other GM vehicles

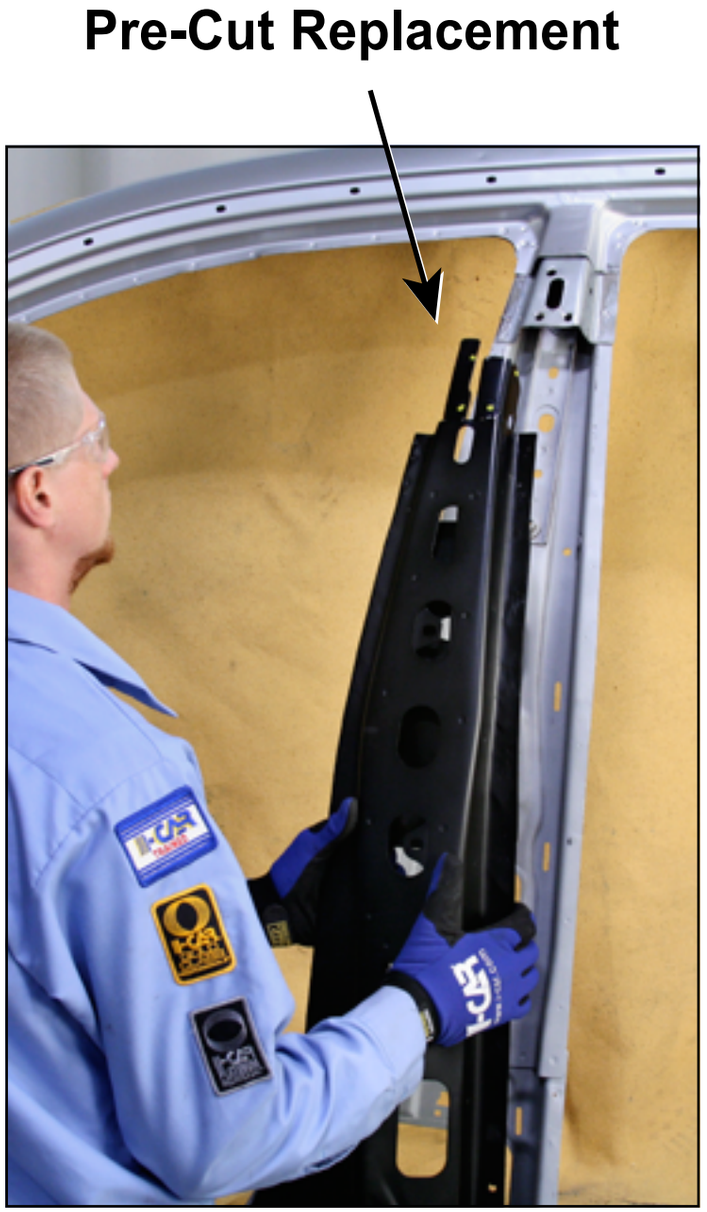
Fuel Tank Shield And Skid



- On 2013 GMC Acadia, Chevrolet Traverse, Buick Enclave
- Visual shield and protective skid plate for fuel tank
- Only on driver side
- Not a jacking point or lift location

Lambda Platform B-Pillar Structural Adhesive





- Between outer pillar and reinforcement
- Added to pass 2012 roof crush test
- Replace reinforcement assembly
- One supplier for replacement adhesive